

CLAIMS

1. (previously presented) A method for representing a plurality of addresses in an address table in a communication system, the method comprising the steps of:

selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character of each address in the plurality of addresses, wherein the regular expression character is chosen in accordance with a regular expression syntax capable of representing commonality within contiguous address ranges and non-contiguous address ranges;

generating a single address that represents the plurality of addresses by inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, thereby generating a group address; and

storing the generated group address in the address table,

whereby a plurality of addresses are represented by a single group address entry in the address table.

2. (previously presented) The method of claim 1, wherein the plurality of addresses comprises at least one X.121 address.

3. (cancelled)

4. (previously presented) The method of claim 1, wherein the plurality of addresses comprises at least one MAC address.

5. (cancelled)

6. (previously presented) The method of claim 3, further comprising the step of using the regular expression to specify at least one address of an address pool.

7. (previously presented) The method of claim 1, wherein said storing step includes the further step of storing the generated group address in a management information base.

8. (previously presented) A network device operative to communicate with a plurality of other network devices, each having at least one address, comprising:

circuitry operative to select at least one regular expression character having a predetermined meaning which represents commonality between at least one character of each address, wherein the regular expression character is chosen in accordance with a regular expression syntax capable of representing commonality within contiguous address ranges and non-contiguous address ranges,

the circuitry further operative to generate a single address that represents the addresses by inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, thereby generating a group address; and

a storage for storing the generated group address, whereby a plurality of addresses are represented by a single address entry in said storage.

9. (original) The network device of claim 8, wherein the storage comprises an address configuration table.

10. (previously presented) The network device of claim 9, wherein the regular expression character defines a source address group.

11. (original) The network device of claim 8, wherein the storage comprises a management information base.

12. (previously presented) The network device of claim 11, wherein the regular expression character defines an address pool.

13. (original) The network device of claim 8, wherein the storage comprises a routing table.

14. (previously presented) The network device of claim 11, wherein the regular expression character defines a forwarding equivalence class for a routing table entry.

15. (previously presented) An address configuration table for mapping a plurality of source devices in a source network to a single destination device in a destination network, the address configuration table comprising:

at least one entry representative of a plurality of addresses, said entry having at least one regular expression character in place of characters in the plurality of addresses, said entry being generated by:

selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character in each address, wherein the regular expression character is chosen in accordance with a regular expression syntax capable of representing commonality within contiguous address ranges and non-contiguous address ranges, and

inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, and storing the generated group address in the address table.

16. (previously presented) A management information base comprising:

a management object for storing at least one entry representative of a plurality of addresses, said entry having at least one regular expression character in place of characters in the plurality of addresses, said entry being generated by:

selecting at least one regular expression character having a predetermined meaning which represents commonality between at least one character in each address, wherein the regular expression character is chosen in accordance with a regular expression syntax capable of representing commonality within contiguous address ranges and non-contiguous address ranges, and

inserting the selected at least one regular expression character in place of the at least one character of the plurality of addresses, and storing the generated group address in the address table.